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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/748,627 | 12/30/2003 | Todd D. Danielson | 5465A | 7488 |
| 7590 | 06/20/2005 | | EXAMINER | |
| Milliken & Company P. O. Box 1927 Spartanburg, SC 29304 | | | METZMAIER, DANIEL S | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1712 | |

DATE MAILED: 06/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|------------------------------|------------------------|---------------------|------|
| | 10/748,627 | DANIELSON ET AL. | |
| Examiner | Daniel S. Metzmaier | Art Unit | 1712 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 14 April 2005.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-14 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 1-14 is/are rejected.
7) Claim(s) _____ is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____.

DETAILED ACTION

Claims 1-14 are pending.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 14, 2005 has been entered.

Terminal Disclaimer

2. The terminal disclaimer filed on April 14, 2005 disclaiming the terminal portion of any patent granted on this application, which would extend beyond the expiration date of US Patent 6,835,333 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Specification

3. The disclosure is objected to because of the following informalities: the application number on page 10, line 6 of the specification requires updating to it's current/correct status.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The range of less than 100 ppm has not been set forth in the original disclosure. Page 8 of the specification sets forth "very low amounts" of the combined absorption compounds with the broadest range set forth as "about 0.001 to about 100 ppm". Each of the preferred ranges has a lower limit of "about 0.001" and less than the upper limit of "about 100 ppm". It is unclear where in the specification applicants provide the concept or pointers to the range of "less than 100 ppm", which would include those less than 0.001 ppm that has not been disclosed.

Furthermore, applicants do not provide basis for the claimed concept of "substantially colorless". Said limitation is deemed to be a negative limitation that is unsupported in the original disclosure. It is noted that each of the examples provides a bluish-violet color. While the specification refers to an "anti-yellowing effect" (page 8), and the "anti-yellowing", "haze" (transparency) and "brightness" are evaluated on page 18, it is noted that these employ 175 mil plaques and compare examples 3 and 4, which employ a combined absorption compound concentration of ~ 5000 and ~ 1500 ppm.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

7. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants have not adequately defined "substantially colorless" in the claims or in the original disclosure that one having ordinary skill in the art would be able to determine the metes and bounds of the claimed subject matter. The instant examples characterized materials as having color. The quantity of color is undefined and would be relative or subjective.

Claim 3 is an independent claim. Claim 3 lacks antecedent basis for "said polyester fiber or article" found in lines 5 and 6 thereof.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 3-4 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over General Electric Company, WO 01/19921 (hereafter GE '921), optionally in view of Weaver et al US 4,845,188. GE '921 (page 7, line 1; page 8, line 1; examples and claims) disclose polyester films employing dyes including Macrolex Violet B (absorption peak maximum between 576 and 605 nm) or Macrolex violet 3R (absorption peak maximum between 555 and 575 nm).

Claim 3 and 4 set forth a liquid solution or dispersion, which is adapted for use in a polyester fiber or article. The colorants disclosed in GE '921 as solvent dyes would be capable of use in making a substantially colorless polyester fiber or article when used at very low concentrations. Said functional language has been considered and given no or little patentable weight for the compositions of the liquid solution or dispersion of at least one uv absorber compound and at least a first and second colorant compound in combination forming a bluing agent.

It is further noted that these are the preferred components of the instant application, exemplified and commonly known as solvent dye 13 and solvent dye 36, respectively.

GE '921 differs from the claims in the use of a combination of colorants as instantly claimed in a liquid solution or dispersion rather than a single colorant exemplified in the GE '921 reference.

GE '921 (page 5, lines 20-24) discloses the Macrolex Violet B and Macrolex violet 3R dyes as dyes known in the art and clearly contemplates the disclosed dyes to be used either singly or in combination. GE '921 (page 12, lines 7-13) teaches the further addition of *uv* absorbers, i.e., *uv* screeners. GE '921 (page 13, lines 1-7) teaches the use of colorant in solvent thereby forming a liquid.

It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to employ the combination of dyes having adjacent absorption spectrums for the advantage of the particular color desired by the combination and for a broader range of absorption by the combination of materials absorbing at different wavelengths.

Furthermore, it is generally *prima facie* obvious to use in combination two or more ingredients that have previously been used separately for the same purpose in order to form a third composition useful for that same purpose. *In re Kerkhoven*, 626 F.2d 846, 205 USPQ 1069 (CCPA 1980); *In re Pinten*, 459 F.2d 1053, 173 USPQ 801 (CCPA 1972); *In re Susi*, 440 F.2d 442, 169 USPQ 423 (CCPA 1971); *In re Crockett*, 279 F.2d 274, 126 USPQ 186 (CCPA 1960). As stated in *Kerkhoven* and *Crockett*, the

idea of combining them flows logically from their having been individually taught in the prior art.

GE '921 (page 4, lines 13-17) discloses the polymers may be prepared in interfacial systems, solutions, in melts or in the solid state. The properties would have been inherent to the use of the individual components for their taught functions. Said combinations would have been *prima facie* obvious for their taught functions.

To the extent GE '921 differs from the claims in the methods or the addition of benzotriazole as a uv absorbing agent, Weaver et al (column 1, lines 17 et seq; particularly lines 25-26 and 30-31) disclose the addition of benzotriazole as a uv absorbing agents to polymers employed in packaging containers including polyesters at concentrations of at least 0.5 %. Weaver et al (column 6, lines 1 et seq) further teaches the use of dyes at 0.01 % to 5.0 % based on the weight of the polymer or fiber.

These references are combinable because they teach weatherable polyesters compositions. It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to employ the combination of dyes with benzotriazole in the concentrations of at least 0.5 % for the advantage of uv polymer stability.

Response to Arguments

12. Applicant's arguments filed November 5, 2004 have been fully considered but they are not persuasive.
13. Applicants (page 7) assert the claims have been amended to require that the articles be "substantially clear" but a review of the claims shows the limitation "substantially colorless".

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Metzmaier whose telephone number is (571) 272-1089. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Daniel S. Metzmaier
Primary Examiner
Art Unit 1712

DSM